

File No.

MONTANA WATER RESOURCES BOARD
RECEIVEDT. 21 12 R. 51

DUPLICATE

FEB 4 1970

County Prairie

LOG

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
STATE WATER CONSERVATION BOARD

Top of Ground

(Elev. above sea level.....)

Notice of Completion of Groundwater
Appropriation by Means of Well
DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

Owner State Highway Commission, Glendice, MontanaDriller Ira C. Bond & Sons Address Terry, Montana

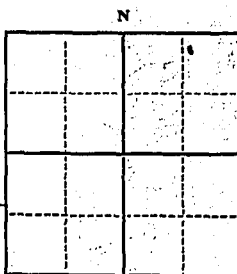
Date of Notice of appropriation of groundwater.....

Date well started 1/26/70 Date completed 1/29/70Type of well driven Equipment used cable tool
(Dug, driven, bored or drilled) (Churn drill, rotary or other)Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☐
Industrial ☐ Drainage ☐ Other ☒

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
4 1/2	4 1/2 od	0	33	3/16	29	32

Doc. No. 91902 W
Filed for record
this 3 day of February
A. D. 19 70, at 9:15
o'clock 2 M.

Static Water Level for non-flowing well 18 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level 30 feet
at 18 gal. per minute.

Discharge in gal. per min. of flowing well.....

How Tested bailedLength of Test 2 hrs.

Remarks: (Gravel packing, cementing, packers, type of shutoff).....

NE 1/4 Sec. 21 T. 12 R. 51

Indicate location of well and place of use, if possible. Each small square represents 40 acres.

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

33

Show exact depth of bottom.

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

37
Driller's License NumberRobert C. Bond
Driller's Signature.

46138

91902
Water Well Log
State Highway Commission
The Public

at 9:15 - 10:00 A.M.

FEB 3 1940

John D. Smith
Vice President
Name

File No. _____

T 12^N R 51^E

DUPLICATE

County _____

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

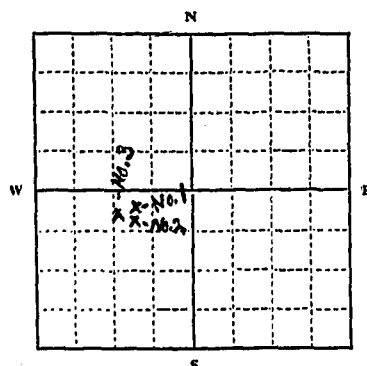
Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

RECEIVED
JAN 6 1964

STATE ENGINEER

1. Harvey Johnson, of Terry
(Name of Appropriator) (Address) (Town)
County of Praine State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



SW 1/4 Sec 22 T12 R51

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based.
No. 1 - Household No. 3 - Household
No. 2 - Stock water
3. Date or approximate date of earliest beneficial use; and how continuous the use has been.
No. 1 - 1942 - continuous
No. 2 - 1942 - continuous
No. 3 - 1942 - "
4. The amount of groundwater claimed (in miner's inches or gallons per minute).
No. 1 - 5 gallons per minute
No. 2 - 5 gallons per minute
No. 3 - 5 "
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof.

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal.
Pumps on all three

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater.
All three commenced & completed 1942

8. The depth of water table.
No. 1 - 12 feet
No. 2 - 12 "
No. 3 - 12 "

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater.

Quincy Sand Point, 1 1/4 pipe, 24 feet deep.
All three

10. The estimated amount of groundwater withdrawn each year.
No. 1 - 109,500 gallons
No. 2 - 36,500 "
No. 3 - 50,000 "

11. The log of formations encountered in the drilling of each well if available.
Not available

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record.
None

Signature of Owner Harvey Johnson
Date Dec. 31 - 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

24893

85550

FILED
at 9:45 o'clock A.M.
DEC 31 1962
Chas. Plunkett
County Clerk
Deputy
Fee 200

File No. _____

MONTANA WATER RESOURCES BOARD

RECEIVEDCounty Prairie

DUPLICATE

LOG

FEB 10 1971

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
STATE WATER CONSERVATION BOARD**Notice of Completion of Groundwater
Appropriation by Means of Well**

DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

Owner Ben Smith Address Terry, MontanaDriller Ira C. Bond & Sons Address Terry, Montana

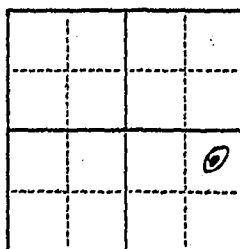
Date of Notice of appropriation of groundwater _____

Date well started 10/13/69 Date completed 10/18/69Type of well Drilled Equipment used cable tool
(Dug, driven, bored or drilled) (Churn drill, rotary or other)Water use: Domestic ☐ Municipal ☐ Stock ☒ Irrigation ☐
Industrial ☐ Drainage ☐ Other ☐

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
7"	6 5/8 od	0	60	none		

Doc. No. 99.759
Filed for record
this 9 day of February
A. D. 19 71 at 10:45
o'clock P. M.



NE 1/4 Sec. 22, T. 12N, R. 5E
Indicate location of well and place of use, if possible. Each small square represents 40 acres.

Static Water Level for non-flowing well 40 feet.

Shut-in Pressure for Flowing Well _____

Pumping Water Level 46 feet
at 10 gal. per minute.

Discharge in gal. per min. of flowing well _____

How Tested bailedLength of Test 2 hrs.

Remarks: (Gravel packing, cementing, packers, type of shutoff) _____

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Show exact depth of bottom.

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

37
Driller's License Number

Robert C. Bond
Driller's Signature.

48129

92759

Water Well Log
Ben Smith
to
The Public

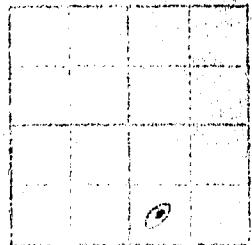
FILED

at 10:45 o'clock A.M.

FEB 9 - 1971

John A. Smith
David W. Zerk
200 ft
Deputy

0 clock
V.D. 10 11 12
10 11 12
10 11 12
10 11 12



File No.

MONTANA WATER RESOURCES BOARD

RECEIVED

T. 12 R. 51

DUPLICATE

County Prairie

LOG

JUN 5 1968

STATE OF MONTANA

ADMINISTRATOR OF GROUNDWATER CODE

OFFICE OF STATE ENGINEER

Top of Ground

(Elev. above sea level.....)

0 - 3 Topsoil
 3 - 15 gray shale
 15 - 30 sand
 30 - 71 sand & gravel
 71 - 95 gray shale
 95 - 97 rock
 97 - 150 gray shale
 150 - 165 blk. shale & coal
 165 - 200 gray shale
 200 - 202 rock
 202 - 235 sand & shale
 235 - 335 blue shale
 335 - 337 rock
 337 - 425 gray shale
 425 - 475 gray sand
 475 - 485 blk. shale
 485 - 530 gray shale
 530 - 550 gray sand
 550 - 585 gray shale
 585 - 604 gray sand
 604 - 605 rock
 605 - 610 gray sand
 610 - 614 rock
 614 - 640 gray sand
 640 - 641 rock
 641 - 650 gray sand
 650 - 652 rock
 652 - 700 gray sand
 700 - 725 blk. shale
 725 - 728 rock
 728 - 740 gray sand
 740 - 762 rock
 762 - 770 gray sand
 770 - 780 gray shale

Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

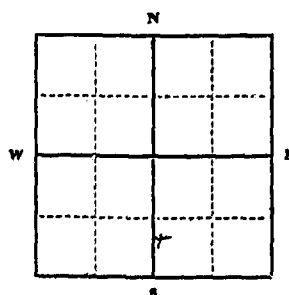
Owner Mrs. Alice Strasheim Address TerryDriller Joe Johnson Drig. Address Terry, Montana

Date of Notice of appropriation of groundwater.....

Date well started 5/20/68 Date completed 5/25/68Type of well Drilled Equipment used Rotary
(Dug, driven, bored or drilled) (Churn drill, rotary or other)Water use: Domestic ☒ Municipal ☐ Stock ☒ Irrigation ☐
Industrial ☐ Drainage ☐ Other ☐

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind Size	From (Feet)	To (Feet)
7"	6" ID 19.18#/ft.	0	75	N O N N		
4 1/2"	2" ID 3.7#/ft.	42	780	holes 3/8"	425 530 585 610 652	475 550 585 610 770



Static Water Level for non-flowing well.....feet.

Shut-in Pressure for Flowing Well 104.....feet

Pumping Water Level.....feet

at.....gal. per minute.

Discharge in gal. per min. of flowing well.....

22 gpmHow Tested Open flowLength of Test 92 hrs.

Remarks: (Gravel packing, cementing, packers, type of shutoff).....

Cemented with 11sacks of cement.

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

Show exact depth of bottom.

Form to be prepared by driller, and three copies to be filed by the owner with the City Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

answer all questions. If not applicable, so state, otherwise the form will be 1.

154

Driller's License Number

Driller's Signature Joe Johnson

44197

Division of Investigation of the Federal Bureau of Investigation
U.S. DEPARTMENT OF JUSTICE

TO: SAC, NEW YORK
 FROM: SAC, NEW YORK
 SUBJECT: [Illegible]

[Illegible text block]

NAME	ADDRESS	DATE	INITIALS
37A	354	3/10/68	[Illegible]
37B	355	3/10/68	[Illegible]
37C	356	3/10/68	[Illegible]
37D	357	3/10/68	[Illegible]

Have questionnaires not been received...
 [Illegible text block]

- Listed to go:
- [Illegible list of names and dates]
 - 90143
 - [Illegible list of names and dates]

FILED
 at 2:52 o'clock P.M.
 JUL 3 1968
[Signature]

This
 Copy
 retain.
 Please
 return.

GV

File No.

DUPLICATE

Plains Well

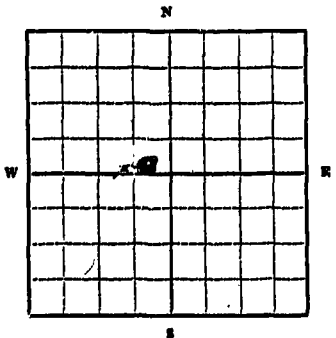
T. *12^N* R. *5^W* *22*
County *Plaine*

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

RECEIVED
FEB 8 1963

STATE ENGINEER

1. *John E. Schwarz* of *Box 343* *Terry*
(Name of Appropriator) (Address) (Town)
County of *Plaine* State of *Montana*
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



SE 1/4 NW 1/4 Sec. 23, T. 12, R. 5, W. 1

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based *for human consumption & stock water*
3. Date or approximate date of earliest beneficial use; and how continuous the use has been *continuous from approximately 1950*
4. The amount of groundwater claimed (in miner's inches or gallons per minute) *25 gal per minute*
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof *0*
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal *artesian*

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater *approximately 1950*
8. The depth of water table *500 to 800 ft.*
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater *500 to 800 ft. deep, artesian*
10. The estimated amount of groundwater withdrawn each year *100,000 gallons*
11. The log of formations encountered in the drilling of each well if available
12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record

Signature of Owner

John E. Schwarz
Date *Feb 7 1963*

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

3563

(S) $\exists x \exists y (x \neq y \wedge \neg \exists z (x \leq z \wedge y \leq z))$
 (S) $\exists x \exists y (x \neq y \wedge \neg \exists z (x \leq z \wedge y \leq z))$
 (S) $\exists x \exists y (x \neq y \wedge \neg \exists z (x \leq z \wedge y \leq z))$

[illegible]

2000年12月15日，在“2000年中国城市竞争力”会议上，中国城市竞争力研究会发布了《2000年中国城市竞争力研究报告》。该报告指出，中国城市竞争力在2000年有所提高，主要表现在以下几个方面：

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

[illegible]

15122946 *Chlorophyll fluorescence and photosynthesis in the leaves of* *Pinus*

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion. The number of people aged 65 and over is expected to increase from 200 million to 400 million. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion.

84244

84244

FILED
15 o'clock A.M.

[Signature]
County Clerk
[Signature]
Deputy

FILED
at 10:15 o'clock A.M.
FEB - 7 1963
County Clerk
Fee 2.00

81927

24

T. 12 R. 51E

County PrairieMONTANA BUREAU OF MINES AND GEOLOGY
Butte, MontanaRECEIVED
MAR 23 1951

WATER WELL LOG

STATE ENGINEER

Owner Lester D. Tusler Address Terry
 Driller Wm. Johnson Address Terry
 Date Started June 1951 Date Completed June 30th, 1951
 Location: Sec. 24 T. 12 R. 51 $\frac{1}{4}$ sec.

Type of well drilled Equipment used driver
 (Dug, driven, bored, or drilled) (Crown drill, rotary, other)

Water use: Domestic ☐ Municipal ☐ Stock ☒ Irrigation ☐
 Industrial ☐ Drainage ☐ Other: _____

Casing: 1 ft. to 57 ft. Type _____ Size 6"

Casing: _____ ft. to _____ ft. Type _____ Size _____

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 48 to ft. 57 Ft. _____ to ft. _____

Type of screen or perforations 3/8" holes

Static Water level, for non-flowing well: _____ feet.

Shut-in pressure, for flowing well: _____ lb./sq. in. on: _____ (date)

Pumping water level 48 feet at 6 gal. per min.

How tested: Motor driven pump jack

Length of test 30 min.

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

(over)

Log of Well

[illegible]

T. 12N R 51E 24
County Prairie

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

RECEIVED
JAN 2 1962

STATE ENGINEER

Owner R. L. TIBBETTS Address Terry, Mont.
Driller Henry I. Johnson Address Terry, Mont.
Date Started _____ Date Completed _____
Location: Sec 24 T. 12N R 51E 1/4 sec.

Type of well Drilled Equipment used Cable tool
(Dug, driven, bored, or drilled) (Cable drill, rotary, other)

Water use: Domestic ☐ Municipal ☐ Stock ☒ Irrigation ☐
Industrial ☐ Drainage ☐ Other: _____

Casing: 0 ft. to 54 ft. Type std Size 4 1/2

Casing: _____ ft. to _____ ft. Type _____ Size _____

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 30 to ft. 50 Ft. _____ to ft. _____

Type of screen or perforations Holes

Static Water level, for non-flowing well: 32 ft feet.

Shut-in pressure, for flowing well: _____ lb./sq. in. on: _____ (date)

Pumping water level 45 ft feet at 12 gal. per min.

How tested: Ball

Length of test 1 hour

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

Gravel packed from bottom to top

(over)

Log of Well

FILED		at <u>St. Paul</u>	clock <u>P. M.</u>
DEC 29 1964			
County Clerk			
Deputy			
Fee	<u>1.00</u>	<u>18</u>	

82815

81012
RECEIVED
JUN 22 1960

T. 12 R. 51 24
County Prairie

STATE ENGINEER MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

Owner Sheldon Bauer Address Terry, Montana
Driller Ira C. Bond Address Terry, Montana
Date Started Dec. 5, 1959 Date Completed Dec. 16, 1959
Location: Sec. 24 T. 12 R. 51 $\frac{1}{4}$ sec. NW $\frac{1}{4}$ NW $\frac{1}{4}$

Type of well Drilled Equipment used Both Cable and Rotary
(Dug, driven, bored, or drilled) (Churn drill, rotary, other)

Water use: Domestic ☐ Municipal ☐ Stock ☒ Irrigation ☐
Industrial ☐ Drainage ☐ Other: _____

Casing: surface ft. to 69 ft. Type steel Size 6"

Casing: surface ft. to 529 ft. Type black Size 2"

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 500 to ft. 514 Ft. _____ to ft. _____

Type of screen or perforations burned holes

Static Water level, for non-flowing well: _____ feet.

Shut-in pressure, for flowing well: 12 gal per minute December 16, 1959
_____ lb./sq. in. on: _____
(date)

Pumping water level _____ feet at _____ gal. per min.

How tested: _____

Length of test _____

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

(over)

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JUN 22 1960

T. 12 R. 51 24

STATE ENGINEER MONTANA BUREAU OF MINES AND GEOLOGY

Butte, Montana

WATER WELL LOG

Owner Sheldon Tusler Address Terry, Montana
Driller Ira C. Bond Address Terry, Montana
Date Started Dec. 5, 1959 Date Completed Dec. 16, 1959
Location: Sec. 24 T. 12 R. 51 1/4 sec. N.W. 1/4 N.W. 1/4

Type of well Drilled Equipment used Both Shiley and Rotary
(Dug, driven, bored, or drilled) (Churn drill, rotary, other)

Water use: Domestic ☐ Municipal ☐ Stock ☒ Irrigation ☐
Industrial ☐ Drainage ☐ Other: ☐

Casing: surface ft. to 69 ft. Type steel Size 6"
Casing: surface ft. to 529 ft. Type black Size 2"
Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 500 to ft. 514 Ft. _____ to ft. _____

Type of screen or perforations burned holes

Static Water level, for non-flowing well: _____ feet

Shut-in pressure, for flowing well: 12 gal per minute 15/sq. in. on: December 16, 1959
(date)

Pumping water level _____ feet at _____ gal. per min.

How tested: _____

Length of test: _____

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

(over)

Log of Well

Depth, feet		Description of Material Drilled
From	To	
0	37	gumbo
37	69	gravel with a little water
69	76	gumbo
76	77	rock
77	84 1/2	blue clay
84 1/2	85	rock
85	133	gumbo
133	157	coal
157	190	gumbo
190	191	rock
191	209	gumbo
209	211	coal
211	233	gumbo
233	247	clay
247	255	gumbo
255	333	clay
333	367	gumbo
367	385	blue clay
385	413	gumbo
413	424	sandy clay
424	436	water sand 2 1/2 gal. per minute
436	500	shale
500	514	water sand 1/2 gallon per minute
514	529	gumbo

File No.

82918

DUPLICATE

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

T. 12 N

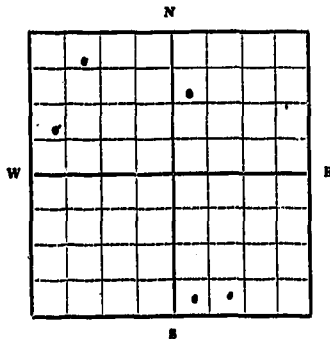
County

RAVINE
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Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. David A. Ross, of Terry
(Name of Appropriator) (Address)
County of Prairie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



1/4 Sec 25 T. 12 R. 51

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based Limestone

3. Date or approximate date of earliest beneficial use; and how continuous the use has been date unknown
continuous use

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 50 gal per minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof none

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal springs

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater unknown

8. The depth of water table unknown

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater no information available

10. The estimated amount of groundwater withdrawn each year 25,920,000 gal

11. The log of formations encountered in the drilling of each well if available none available

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record none available

Signature of Owner David A. Ross

Date Jan 31, 1962

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

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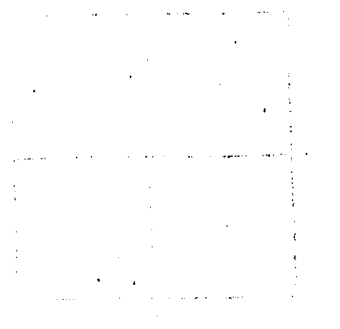
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FILED
at 3:10 o'clock P.M.
FEB 5 - 1982
E. J. [Signature]
County Clerk
Fee 2.00 *px*

File No.

DUPLICATE

T. 12 N. R. 51

County Prairie

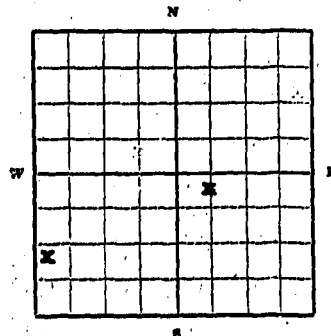
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 11 1962

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. Ralph E. Bray c/o FRED UNRUH
(Name of Appropriator) GLENDALE, MT. of Terry, Montana
(Address) (Town)
County of Prairie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



1/4 Sec. 26, T. 12, R. 51

Indicate point of appropriation
and place of use, if possible.
Each small square represents 10
acres.

2. The beneficial use on which the claim is based Stock water and sub-irrigate approximately 100 acres meadow
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1910 and has been used continuously since that time
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 5 gals. per minute per spring
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof Not used for irrigation - springs used for stock water
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Free flowing spring
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater Not applicable
8. The depth of water table Unknown
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater Not applicable
10. The estimated amount of groundwater withdrawn each year 200,000 gals. per year
11. The log of formations encountered in the drilling of each well if available Not available
12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record No other information available

Signature of Owner Ralph E. Bray

Date January 8, 1962

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

RECOMMENDATION 10

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FILED	
at 3:15	o'clock P.M.
JAN 9 1967	
<i>E. J. [Signature]</i>	
[Signature]	
Fee 42	Depos

File No.

DUPLICATE

T. 12 S. 51 E.

County Prairie

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

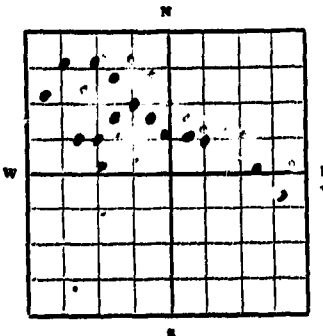
RECEIVED
JAN 11 1962

STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Ralph Bray 40 FRED UNRUH
(Name of Appropriator) GLENDIVE MT of Terry, Montana (Town)
County of Prairie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



1/4 Sec. T. R.

Indicate point of appropriation
and place of use, if possible.
Each small square represents 10
acres.

2. The beneficial use on which the claim is based Stock water and sub-irrigation approximately 100 acres hay-land
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1910 and has been continuous since that time
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 5 gals. per minute per spring (11 springs)
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof Sub-irrigation 100 acres (approx.) of hay meadow land which belongs to Ralph Bray
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Free-flowing springs
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater Not applicable
8. The depth of water table Unknown
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater Not applicable
10. The estimated amount of groundwater withdrawn each year 36,792,000 gals. per year
11. The log of formations encountered in the drilling of each well if available Not available
12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record No other information available

Signature of Owner Ralph C. Bray

Date January 8, 1962

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

T. _____ R. _____
County Prairie

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

RECEIVED
JAN 2 1930

WATER WELL LOG

STATE ENGINEER

Owner E. L. Tibbets Address Terry, Mont.
Driller Ira C. Bond Address Terry, Mont.
Date Started Approx 1920 Date Completed 1930
Location: Sec. 27 T. 22 R. 51 1/4 sec. 34

Type of well Drilled Equipment used Cable tool
(Dig, driven, bored, or drilled) (Cable drill, rotary, other)

Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☒
Industrial ☐ Drainage ☐ Other: _____

Casing: 0 ft. to 75 ft. Type 6 1/2 Size 1 1/2

Casing: 75 ft. to 90 ft. Type 8 1/2 Size 2

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 70 to ft. 90 Ft. _____ to ft. _____

Type of screen or perforations Holes

Static Water level, for non-flowing well: 45 feet.

Shut-in pressure, for flowing well: _____ lb./sq. in. on: _____ (date)

Pumping water level 80 feet at 500 gal. per min.

How tested: Pump

Length of test 1 hr

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

(over)

82812

FILED	
at 5:00	a'clock P.M.
DEC 29 1964	
County Clerk	
Fee 1.00	Deputy

File No. _____

T. 12^P R. 51^E

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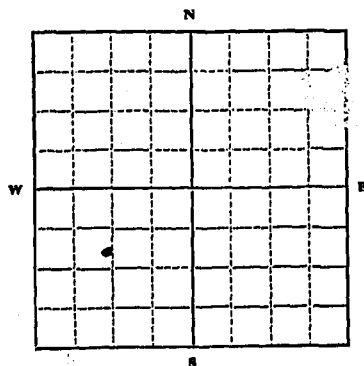
County Prairie

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
SEP 18 1962

Declaration of Vested Groundwater Rights STATE ENGINEER
(Under Chapter 237, Montana Session Laws, 1961)

1. Lester Jens, of Terry
(Name of Appropriator) (Address) (Town)
County of Prairie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



S.W. 1/4 Sec. 31 T. 12 R. 51

Indicate point of appropriation
and place of use, if possible.
Each small square represents 10
acres.

2. The beneficial use on which the claim is based Stock
Water
3. Date or approximate date of earliest beneficial use; and how continuous the use has been Continuous
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 1/2
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Open

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater
8. The depth of water table Surface
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater
10. The estimated amount of groundwater withdrawn each year 262,800
11. The log of formations encountered in the drilling of each well if available
12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record

Signature of Owner

Date Sept 17, 1962

These copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

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at 10:30	o'clock A.M.
SEP 17 1962	
<i>E. J. [illegible]</i>	
County Clerk	
Fee 2.00	Deputy

File No.

T. 12^N R. 51^E

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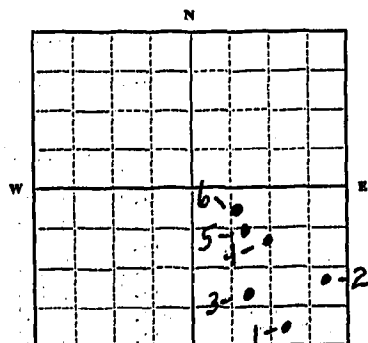
County Prairie

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Gary H. Larsen And Carol E. Larsen, of Box 635 Terry, Montana
(Name of Appropriator) (Address) (Town)
County of Prairie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



S. E. 1/4 Sec. 36 T. 12 R. 51

Indicate point of appropriation
and place of use, if possible.
Each small square represents 10
acres.

2. The beneficial use on which the claim is based House use stock water sub irrigation of hay meadow

3. Date or approximate date of earliest beneficial use; and how continuous the use has been continuous use for at least 70 years

4. The amount of groundwater claimed (in miner's inches or gallons per minute) Approximately 5 Gallons per Minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof About 50 Acres of sub irrigated hay meadow that is on the creek that runs thru the South East 1/4 of Section 36 T 12 R 51

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Free Flowing Surface Springs

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater not known for sure

8. The depth of water table Not Known

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater Spring listed on the map as spring no. (4) has been dug out and boxed up and pipe layed from the spring to the house for house use. Spring No (5) has been trenched and piped for use in stock watering and irrigation of an Apple Orchard.

10. The estimated amount of groundwater withdrawn each year 2,628,000 Per Spring

11. The log of formations encountered in the drilling of each well if available does not apply

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record does not apply

Signature of Owner

Date 12/9/63

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

8475

85262

FILED
at 11:00 o'clock A.M.
DEC 9 1963
[Signature]
County Clerk
Fee \$2.00 [Signature] Deputy

T 12 R 84

County.....Laurens.....

RECEIVED
NOV 6 1963

(Under Chapter 237, Montana Session Laws, 1961)

Indicate point of appropriation
and place of use, if possible.
Each small square represents 10
acres.

2. The beneficial use on which the claim is based washing and lawn irrigation
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1951 Steadily each growing season.
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 2 gallons
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal shallow well pressure pump

- 6938

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JAN 10 1964

STATE BRANCH

85035

FILED	
at _____	o'clock _____ M.
NOV - 5 1963	
County Clerk	
Deputy	
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GROUNDWATER INDEX

Page of

County PRAIRIE Twp. 12N Rge. 52E

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79260

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APR 20 1959

STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

T 12 R 52E

County FRAIRIE

WATER WELL LOG

Owner Otto Beuchler Address Fallon, MontanaDriller Ira C. Bond Address Terry MontanaDate Started September 24, 1957 Date Completed Sept. 9, 1957Location: Sec. 1 T 12 R 52E $\frac{1}{4}$ sec. SW⁴ of the SW⁴Type of well Drilled (Dug, driven, bored, or drilled) Equipment used Rotary (Churn drill, rotary, other)Water use: Domestic ☐ Municipal ☐ Stock ☒ Irrigation ☐Industrial ☐ Drainage ☐ Other: _____Casing: 3 ft. to 36 ft. Type steel Size 6 inchCasing: 0 ft. to 747 ft. Type Gal. Steel Size 2 inch

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 620 to ft. 644 Ft. 655 to ft. 725Type of screen or perforations 5/16 holes cut 3 in. apart with cutting torch

Static Water level, for non-flowing well: _____ feet.

Shut-in pressure, for flowing well: 20 lb./sq. in. on: September 9, 1957
(date)

Pumping water level: _____ feet at _____ gal. per min.

How tested: with five gallon bucketLength of test: one minute

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

(over)

Log of Well

Depth, feet		Description of Material Drilled
From	To	
0	15	Gumbo
15	44	gravel
44	54	gumbo
54	55	coal
55	83	gumbo
83	86	Hard rock
86	116	gumbo
116	118	coal
118	132	jumbo
132	133	Rock
133	150	Shale
150	167	Water Sand
167	169	Rock
169	178	Shale
178	183	Rock
183	245	Shale
245	246	Rock
246	255	shale
255	258	Rock
258	278	Shale
278	379	Coal
379	483	Shale
483	498	Watersand
498	500	Rock
500	532	Shale
532	504	Rock
504	576	Water sand
576	578	Rock
578	620	Shale
620	644	Water sand
644	655	Shale
655	725	Water Sand
725	747	Shale

RECEIVED
OCT 21 1957

STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

T. 12 R. 52

County: Prairie

WATER WELL LOG

	X	

Owner: Otto Buechler Address: Fallon, Montana

Driller: Irv C. Bond Address: Terry, Montana

Date Started: Sept 7, 1957 Date Completed: Sept 9, 1957

Location: Sec. 1 T. 12 R. 52 1/4 sec. SW/4 of NW/4

Type of well: Artesian Equipment used: Cable and Rotary
(Dug, driven, bored, or drilled) (Cable drill, rotary, other)

Water use: Domestic ☐ Municipal ☐ Stock ☒ Irrigation ☐

Industrial ☐ Drainage ☐ Other: _____

Casing: surface to 36 ft. Type: Steel Size: 6"

Casing: Surface to 747 ft. Type: Galv Size: 2"

Casing: _____ ft. to _____ ft. Type: _____ Size: _____

Perforated or Screened: Ft. 678 to ft. 740 Ft. _____ to ft. _____

Type of screen or perforations: holes 1/2" burred with torch

Static Water level, for non-flowing well: 32 gals. per minute _____ feet.

Shut-in pressure, for flowing well: 20% lb./sq. in. on: Sept 9, 1957 (date)

Pumping water level: _____ feet at _____ gal. per min.

How tested: _____

Length of test: _____

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)
Surface casing grouted in with bentonite. Well Seal used at top.
2" gate valve at top of casing used for shut off.

(over)

Log of Well

Depth, feet		Description of Material Drilled
From	To	
0	12	sandy clay
12	36	gravel
36	58	gumbo
58	59	rock
59	62	gumbo
62	63	rock
63	68	gumbo
68	70	coal
70	76	gumbo
76	78	coal
78	111	gumbo
111	112	rock
112	114	gumbo
114	115	rock
115	140	gumbo
140	159	mud flow 1 gal per minute
159	160	rock
160	173	gumbo
173	183	coal
183	188	shale
188	189	rock
189	198	shale
198	199	rock
199	206	shale
206	207	rock
207	222	gumbo
222	226	rock
226	267	shale
267	268	rock
268	306	gumbo
306	309	rock
309	409	shale
409	410	rock
410	465	shale
465	467	rock
467	493	shale
493	496	rock
496	524	shale
524	525	rock
525	531	shale
531	532	rock
532	566	shale
566	567	rock
567	678	shale
678	740	water sand --flow 32 gals. per minute
740	747	shale

File No. _____

T. 12 R 52

DUPLICATE

County Prarie

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

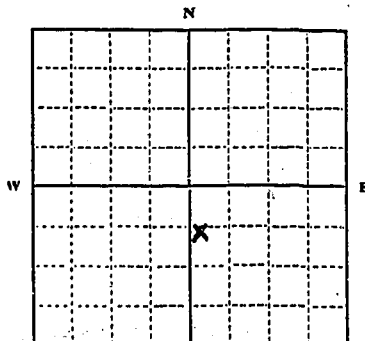
RECEIVED
DEC 27 1963

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. John W. Ness, of Fallon
(Name of Appropriator) (Address) (Town)
County of Prarie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



Unit No 286^s
NW 1/4 SE Sec. 9 T. 12 R. 52.

Indicate point of appropriation
and place of use, if possible. Each
small square represents 10 acres.

2. The beneficial use on which the claim is based stock watering
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1950 - continuous
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 8 gallons per minute
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater Commenced & completed 1950

8. The depth of water table 75 feet

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater.

Drilled - brush casing - 85 ft deep

10. The estimated amount of groundwater withdrawn each year 170,000 gallons

11. The log of formations encountered in the drilling of each well if available.

Not available

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record.

None

Signature of Owner John W. NessDate Dec 26-1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

13682

CIVIL ENGINEER

85455

FILED	
at 3:15 o'clock P.M.	
DEC 20 1963	
<i>Allen Hunter</i>	
County Clerk	
Fee 2.00	Deputy

File No. _____

DUPLICATE

T. 12N R. 32E

County Praine

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

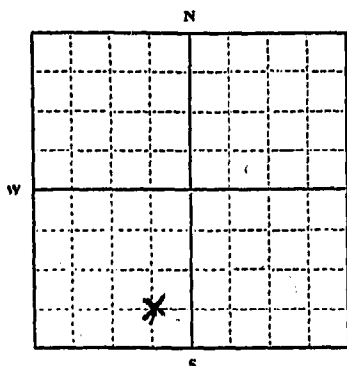
JAN 6 1964

STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Fred J. Kaul, of Fallon
(Name of Appropriator) (Address) (Town)
County of Praine State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



SW 1/4 Sec. 1 T. 12N R. 32E

Indicate point of appropriation
and place of use, if possible. Each
small square represents 10 acres.

2. The beneficial use on which the claim is based.

Stock watering

3. Date or approximate date of earliest beneficial use; and how continuous the use has been.

July 1945 - continuous

4. The amount of groundwater claimed (in miner's inches or gallons per minute).

6 gallons minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof.

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal.

Pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater.

Commenced & completed July 1945

8. The depth of water table.

30 feet

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater.

Drilled - 6 in casing - 65 feet deep

10. The estimated amount of groundwater withdrawn each year.

162,000 gallons

11. The log of formations encountered in the drilling of each well if available.

Not available

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record.

None

Signature of Owner

Date Dec. 31 - 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of
Mines and Geology, and Quadruplicate for the Appropriator.

24890

85547

FILED
at 4:45 o'clock P.M.
DEC 30 1963
Ellen Smith
County Clerk
Deputy
Fee 200 Rd.

GW

File No.

DUPLICATE

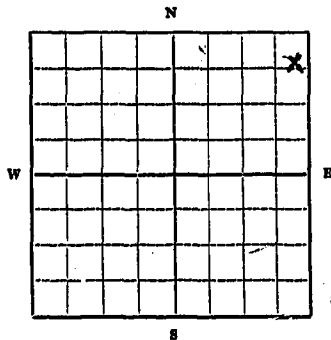
T. 12^N R. 5^E S. 2
County Prine

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

RECEIVED
JAN 5 1962

STATE ENGINEER

1. J.C. or Myrtle V. Wheeler, of Fallon
(Name of Appropriator) (Address) (Town)
County of Prine State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



16 1/4 Sec. 2 T. 12 R. 52

Indicate point of appropriation
and place of use, if possible.
Each small square represents 10
acres.

2. The beneficial use on which the claim is based Irrigation & stock
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1893 - continuous use to date
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 10 gal.
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof About 2-acre garden
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Pump
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1893 - 1893
8. The depth of water table 16 ft.
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater Dug well - 3 ft diameter - 19 ft deep.
10. The estimated amount of groundwater withdrawn each year 90,000 gal.
11. The log of formations encountered in the drilling of each well if available 0-3 - Sandy loam - 3-19 - Gravel.
12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record.

Signature of Owner J.C. Wheeler

Date Jan 2 - 1962

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

1073


 J. Edgar Hoover

[illegible]

...to be in the ...

FILED
 at 11:05 a'clock P. M.
 JAN 4 - 1962
 County Clerk
 Fee 2.00 Deputy

[Faint, illegible handwritten notes]

GW

File No.

DUPLICATE

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

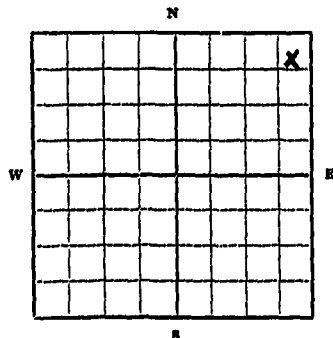
T. 12^N R. 5^E S. 2²
County Blaine

RECEIVED
JAN 5 1962

STATE ENGINEER

J.C. or Myrtle V. Wheeler of Fallon
(Name of Appropriator) (Address) (Town)

County of Blaine State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



N. 6. 1/4 Sec. 2 - T. 12. R. 52

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based House

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1941

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 1.0 gal.

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof House & Town Irrigation

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater 1941 - 1941

8. The depth of water table 16 ft.

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater Drilled - 6 in pipe casing - 37 ft deep

10. The estimated amount of groundwater withdrawn each year 77,000 gal.

11. The log of formations encountered in the drilling of each well if available 0-3 - sandy loam - 3 to 37 - gravel

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record

J.C. Wheeler
Signature of Owner Myrtle V. Wheeler
Date Jan 2-1962

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

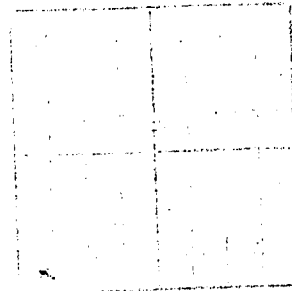
Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

1074

82823

Water Well Log
to
The Public



734 47 4 200 1962

FILED	
at 11 A.M.	at 1 P.M.
JAN 4 1962	
County Clerk	
Fee 2.00	Deputy

THE PUBLIC NOTICE OF THE RECORDING OF THIS INSTRUMENT IS HEREBY GIVEN BY THE COUNTY CLERK OF THE COUNTY OF ...

19347

RECEIVED

MAY 7 1959

STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

T. 12 R. 52

County: Prairie

WATER WELL LOG

Owner: J. C. Wheeler & Mrs. Wheeler Address: Fallon, Montana

Driller: Ira C. Bond Address: Terry, Montana

Date Started: April 11, 1959 Date Completed: April 23, 1959

Location: Sec. 2 T. 12 R. 52 1/4 sec. 34 of the NE 1/4

Type of well: Drilled Equipment used: Cable tool and rotary
(Dug, driven, bored, or drilled) (Churn drill, rotary, other)Water use: Domestic ☒ Municipal ☐ Stock ☐ Irrigation ☐Industrial ☐ Drainage ☐ Other: _____

Casing: 0 ft. to 723 ft. Type: Steel galv Size: 8 inch

Casing: surface ft. to 36 ft. Type: steel Size: 6"

Casing: _____ ft. to _____ ft. Type: _____ Size: _____

Perforated or Screened: Ft. 670 to ft. 720 Ft. _____ to ft. _____

Type of screen or perforations: 1/2 in holes cut 1 1/2 inches apart with cutting torch

Static Water level, for non-flowing well: _____ feet.

Shut-in pressure, for flowing well: _____ lb./sq. in. on: _____ (date)

Pumping water level: _____ feet at _____ gal. per min.

How tested: with bucket (five gallon) and watch

Length of test: for one minute. Flows 50 gpm open flow 4-23-59

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

(over)

Log of Well

Depth, feet		Description of Material Drilled
From	To	
0	3	Gumbo
3	28	Gravel
28	34	Gumbo
34	36	coal
36	112	Gumbo
112	113	Rock
113	142	shale
142	143	Rock
143	155	shale
155	159	Rock
159	172	Shale
172	179	Coal
179	216	Shale
216	218	Rock
218	220	Gumbo
220	222	Coal
222	230	Shale
230	232	Coal
232	237	Shale
237	238	Rock
238	438	Shale
438	459	Rock
459	545	Shale
545	547	Rock
547	620	Shale
620	621	Coal
621	667	Shale
667	670	Rock
670	694	Water sand
694	700	Shale
700	719	Water sand
719	720	Rock
720	723	Shale

GW:

File No. _____

DUPLICATE

T. 12 R. 52
County Crain

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER
OFFICE OF STATE ENGINEER

RECEIVED
JAN 5 1962

Notice of Completion of Groundwater Appropriation Without Well

(Under Chapter 237-Montana Session Laws, 1961)

Date of Appropriation of Groundwater 1953
Owner J.C. Wheeler Address Fallon, Mont.

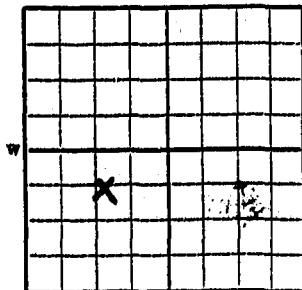
Contractor (if any) _____

Address of Contractor _____

Date Started Oct. 1953 Date Completed Oct. 1953

Describe means of obtaining groundwater without a well "as by sub-irrigation and other natural processes". Include depth to water when applicable.

Spring



Sec 2 T12 R52
Indicate point of appropriation and place of use, if possible.

Quantity of water developed and used with explanation of method used to measure or estimate such amount. If use is intermittent estimate approximate lengths of periods of use

Spring run continuously used for stock water

Signature of Owner

J.C. Wheeler
Date Jan 2-1962

This form to be prepared by contractor (if any), otherwise by the owner.

Three copies of this notice are to be filed with the County Clerk and Recorder of the county in which the works are located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

82822

Water Well Log
J.C. Wheeler
to
The Public

FILED	
at 1:4	o'clock P. M.
JAN 4 1962	
County Clerk	
Page 2 of 19	Survey

File No. _____
DUPLICATE

Flamingo

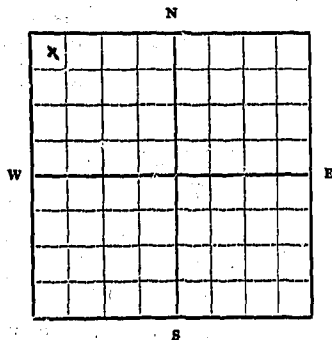
T. 12 N R 52 E
County Prairie

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

1. Knuths Cattle Co of Terry
(Name of Appropriator) (Address) (Town)
County of Prairie State of Mont.
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



NW 1/4 Sec. 4 T. 12 N R 52 E
Indicate point of appropriation
and place of use, if possible.
Each small square represents 10
acres.

2. The beneficial use on which the claim is based stock well
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1909
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 25 gal per min
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal natural flow

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater commencement + completion in the year of 1909
8. The depth of water table 600 ft to artesian sand
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater drilled to a depth of 640 ft and cased with 2" casing
10. The estimated amount of groundwater withdrawn each year 3,000,000
11. The log of formation encountered in the drilling of each well if available not available
12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record

Signature of Owner Knuths Cattle Co
By Gordon Knuths
Date Jan 22, 1962

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

OFFICE OF THE COUNTY CLERK

CLERK OF THE SUPERIOR COURT

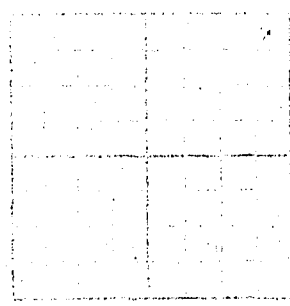
(Tenth)

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of said County at the City of Butte, Montana, this 11th day of May, 1962.

33-11-3002

1962

22 p. 32



FILED

CLERK OF THE SUPERIOR COURT

1962

83011

FILED
at 2:30 o'clock P.M.
MAY 13 1962
County Clerk
Deputy
Fee \$2.00

File No.

DUPLICATE

T. 12 N. R. 52 E

County Prarie

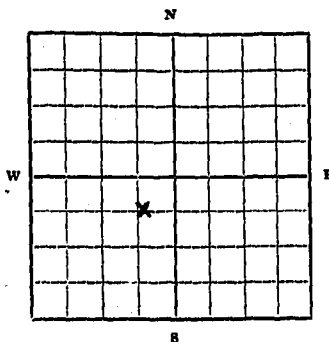
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. Knuths Cattle Co., of Terry,
(Name of Appropriator) (Address) (Town)
County of Prarie State of Mont
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



SW 1/4 Sec. 4 T. 12 N. R. 52 E

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based stock well

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1909

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 2.0 gal per min

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal natural flow

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater commencement & completion in the year of 1909

8. The depth of water table 500 ft to artesian sand

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater drilled to a depth of 550 ft and cased with 2" casing

10. The estimated amount of groundwater withdrawn each year 3,000,000

11. The log of formations encountered in the drilling of each well if available not available

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record

Signature of Owner

Knuths Cattle Co.
By Gordon Knuth
Date Jan 23, 1962

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the School of Mines and Quadruplicate for the Appropriator.

1714

1. *Chlorophyll a* (Chl *a*) and *Chlorophyll b* (Chl *b*) were determined using the method of Arar and Collins (1997). The concentration of Chl *a* and Chl *b* was expressed as $\mu\text{g mL}^{-1}$ of the sample.

1000

[illegible]

1. *Chlorophyll a* (Chl *a*)
 2. *Chlorophyll b* (Chl *b*)
 3. *Chlorophyll c* (Chl *c*)
 4. *Chlorophyll d* (Chl *d*)
 5. *Chlorophyll e* (Chl *e*)
 6. *Chlorophyll f* (Chl *f*)
 7. *Chlorophyll g* (Chl *g*)
 8. *Chlorophyll h* (Chl *h*)
 9. *Chlorophyll i* (Chl *i*)
 10. *Chlorophyll j* (Chl *j*)
 11. *Chlorophyll k* (Chl *k*)
 12. *Chlorophyll l* (Chl *l*)
 13. *Chlorophyll m* (Chl *m*)
 14. *Chlorophyll n* (Chl *n*)
 15. *Chlorophyll o* (Chl *o*)
 16. *Chlorophyll p* (Chl *p*)
 17. *Chlorophyll q* (Chl *q*)
 18. *Chlorophyll r* (Chl *r*)
 19. *Chlorophyll s* (Chl *s*)
 20. *Chlorophyll t* (Chl *t*)
 21. *Chlorophyll u* (Chl *u*)
 22. *Chlorophyll v* (Chl *v*)
 23. *Chlorophyll w* (Chl *w*)
 24. *Chlorophyll x* (Chl *x*)
 25. *Chlorophyll y* (Chl *y*)
 26. *Chlorophyll z* (Chl *z*)
 27. *Chlorophyll aa* (Chl *aa*)
 28. *Chlorophyll ab* (Chl *ab*)
 29. *Chlorophyll ac* (Chl *ac*)
 30. *Chlorophyll ad* (Chl *ad*)
 31. *Chlorophyll ae* (Chl *ae*)
 32. *Chlorophyll af* (Chl *af*)
 33. *Chlorophyll ag* (Chl *ag*)
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 58. *Chlorophyll afz* (Chl *afz*)
 59. *Chlorophyll agz* (Chl *agz*)
 60. *Chlorophyll ahz* (Chl *ahz*)
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 87. *Chlorophyll aiz* (Chl *aiz*)
 88. *Chlorophyll ajz* (Chl *ajz*)
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 90. *Chlorophyll alz* (Chl *alz*)
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 93. *Chlorophyll aoz* (Chl *aoz*)
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 101. *Chlorophyll awz* (Chl *awz*)
 102. *Chlorophyll axz* (Chl *axz*)
 103. *Chlorophyll ayz* (Chl *ayz*)
 104. *Chlorophyll azz* (Chl *azz*)
 105. *Chlorophyll azaa* (Chl *aza*)
 106. *Chlorophyll abz* (Chl *abz*)
 107. *Chlorophyll acz* (Chl *acz*)
 108. *Chlorophyll adz* (Chl *adz*)
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 112. *Chlorophyll ahz* (Chl *ahz*)
 113. *Chlorophyll aiz* (Chl *aiz*)
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 131. *Chlorophyll azaa* (Chl *aza*)
 132. *Chlorophyll abz* (Chl *abz*)
 133.

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

100-443887-100

... ..

1. The first step in the process of identifying a potential threat to national security is to determine the nature of the threat. This involves a thorough analysis of the threat's source, its objectives, and its potential impact on the United States. The next step is to assess the threat's likelihood of occurring and the potential damage it could cause. This is followed by a determination of the threat's vulnerability to various forms of attack, including cyber, physical, and biological. Finally, the threat is categorized as either a low, medium, or high priority based on the severity of the potential damage and the likelihood of occurrence.

...the

[illegible]

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83011

[illegible]

[Faint, illegible handwritten notes at the bottom of the page]

100-443887-100

[Faint, illegible handwritten notes at the bottom of the page]

This image shows a blank, aged, cream-colored page, likely an endpaper or flyleaf of a book. The paper has a slightly textured appearance with some minor discoloration and a small dark stain near the center. The binding edge on the left is visible, showing the stitching and the inner cover.

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

1. The first step is to identify the problem. This involves understanding the current situation and the goals that need to be achieved.

83011

FILED
at 2:31 o'clock P.M.
MAR 13 1962
County Clerk
Fee Deputy

File No. _____

DUPLICATE

T. 12N 52E
County Prairie

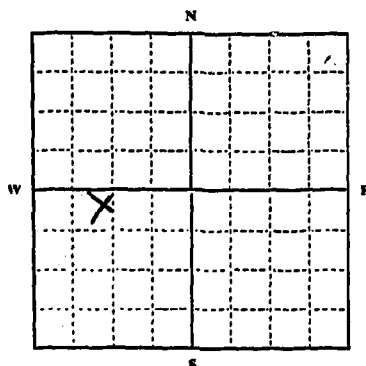
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 6 1964

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Ludwig Stabel, of Fallon,
(Name of Appropriator) (Address) (Town)
County of Prairie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



SW $\frac{1}{4}$ Sec 10 T 12 R 52

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based
stock watering

3. Date or approximate date of earliest beneficial use; and how continuous the use has been
1943 - continuous

4. The amount of groundwater claimed (in miner's inches or gallons per minute)
5 gallons minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal
Pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater
Commenced, completed approximately 1943

8. The depth of water table
60 feet

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater
Drilled - 2 inch casing - 350 ft deep

10. The estimated amount of groundwater withdrawn each year
432,000 gallons

11. The log of formations encountered in the drilling of each well if available
Not available

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record
None

Signature of Owner

Date Nov. 30 - 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

24857

85513

FILED
at 11:00 o'clock P.M.
DEC 30 1963
Wm. Johnston
County Clerk
James C. Sullivan
Deputy
Fee 4.50

File No. _____

DUPLICATE

T. 12^NR. 52^ECounty Pravie

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

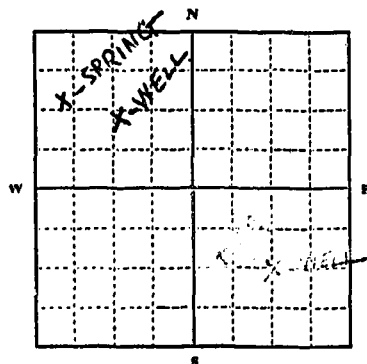
RECEIVED
JAN 6 1964

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

STATE ENGINEER

1. Fred J. Kaul, of Fallon
(Name of Appropriator) (Address) (Town)
County of Pravie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



NW 1/4 Sec. 12 T. 12 R. 52

Indicate point of appropriation
and place of use, if possible. Each
small square represents 10 acres.

2. The beneficial use on which the claim is based.

Spring + Well - stock watering

3. Date or approximate date of earliest beneficial use; and how continuous the use has been.

Well - 1959 - continuous
Spring - 1958 - continuous

4. The amount of groundwater claimed (in miner's inches or gallons per minute).

Well - 15 gallons minute
Spring - 15 gallons minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof.

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal.

Well - pumped
Spring - self flowing

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater.

Well - commenced - 1958
Spring developed - 1958

8. The depth of water table.

Well - 25 feet.

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater.

Well - drilled - 6 inch casing - 65 feet.
Spring - dug out 50 ft spread - 10 ft deep.

10. The estimated amount of groundwater withdrawn each year.

Well - 45,000 gallons year
Spring - 7,884,000 "

11. The log of formations encountered in the drilling of each well if available.

Not available

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record.

None

Signature of Owner

Date

Fred J. Kaul
Dec 30 - 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of
Mines and Geology, and Quadruplicate for the Appropriator.

24891

85548

FILED
at 4:45 o'clock P.M.
DEC 30 1963
Humphreys
County Clerk.
Deputy
Fee 2.00

X-NEET
X-265

GW

Approved Stock Form—State Publishing Co., Helena, Montana—2234

File No. _____

DUPLICATE

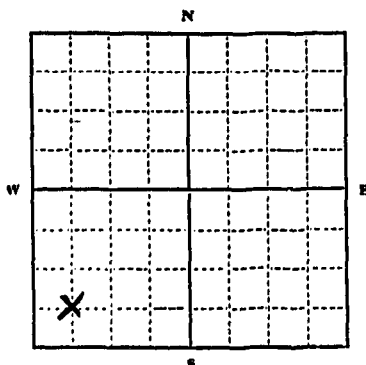
T. 12^N R. 52^ECounty Flaming

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 6 1964

Declaration of Vested Groundwater Rights STATE ENGINEER
(Under Chapter 237, Montana Session Laws, 1961)

I, Fred Haidle, of Fallon,
(Name of Appropriator) (Address) (Town)
County of Prairie State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



1/4 Sec. 12 T. 12 R. 52

Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres.

2. The beneficial use on which the claim is based Stock
3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1946 - Continuous
4. The amount of groundwater claimed (in miner's inches or gallons per minute) 10 gals
5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof
6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Spring
7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater
8. The depth of water table
9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater Spring
10. The estimated amount of groundwater withdrawn each year 4,526,000 gals
11. The log of formations encountered in the drilling of each well if available
12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record

Signature of Owner Fred Haidle

Date 12/31/63

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.

24942

85601

FILED	
at <u>4:30</u> o'clock <u>P.</u> M.	
DEC 31 1963	
<i>Ellen Johnston</i>	
County Clerk	
Fee <u>2.00</u>	Deputy

File No. _____

MAY 2 1967

T 12 R 52

County Prairie

DUPLICATE

Bill _____
Baker _____
Carr _____
Dicket _____
Elev. above sea level _____

McDermott _____
McNulty _____
Morton _____
Sullivan _____

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground _____
(Elev. above sea level _____)

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

0-110 - Sand & Gravel
110-120 - Quick Sand
120-180 - Blu Shale & Skirts of Coal
180-200 - Lt. Gray Sandy Shale
200-205 - Rock
205-225 - Brn. Shale & Coal
225-240 - Gray Sandy Shale
240-255 - Gray Sandy Shale
255-295 - Blu Shale
295-335 - Lt. Blu Sand
335-650 - Blu Shale - Skirts
OF ROCK

Owner Martin Sackman Address Fallon, Montana
Driller Jac. Johnson Address Terry, Montana

Date of Notice of Appropriation of Groundwater _____

Date well started 2/27/67 Date Completed 3/23/67

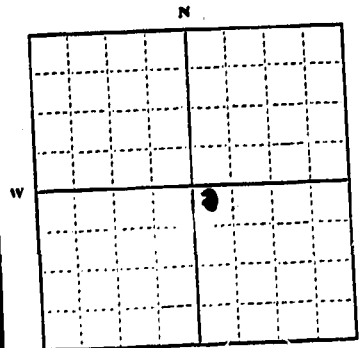
Type of well Drilled Equipment Used Rotary
(dug, driven, bored or drilled) (Churn, drill, rotary or other)

Water Use: Domestic ☐ Municipal ☐ Other ☐ Irrigation ☐
Industrial ☐ Drainage ☐ Stock ☒

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which water rises in the well.

650-655 - Rock
655-725 - Blu-gray Sand
725-800 - Shale & St of Sand
800-804 - Rock
804-885 - Sand
885-895 - Rock
895-916 - Shale & streaks of Sand
916-936 - Shale
DK. & Hard

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind (Feet)	From (Feet)	To (Feet)
7 7/8"	6" I.D. 19.18" Wt	0'	130'	5 1/2" TS 4 1/2" 16"	130'	130'
5 5/8"	4" I.D. 11" Wt	0'	336'	None	-	-
4 1/2"	2" I.D. 3.5" Wt	306'	936'	Moles 3/4"	736'	936'



SE 1/4 Sec 13 T12 R52
Indicate location of well and place of use, if possible. Each small square represents 10 acres.

Show exact depth of bottom.

936'

Static Water Level for non-flowing Well 160 feet.

Shut-in Pressure for Flowing Well _____

Pumping Water Level 180 feet at 7 1/2 gal. per minute.

Discharge in gal. per min. of flowing well _____

How Tested Pumped Length of Test 4 hrs.

Remarks: (Gravel packing, cementing, packers, type of shutoff, location of place of use of groundwater if not at well, and any other similar pertinent information, including number of acres irrigated, if used for irrigation) Packer Set at 680'

154
Driller's License Number

Jac. Johnson
Driller's Signature

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.

41,955

88879

FILED
at 11:30 o'clock A.M.
MAY 1 1967
B. L. Hamilton
County Clerk
Deputy
Fee 2⁰⁰ Id.